

**Module: Introduction****Page: Introduction****CC0.1****Introduction**

Please give a general description and introduction to your organization.

Philip Morris International Inc. (PMI) is the leading international tobacco company, with its headquarters in New York City, New York, U.S.A. and Operations Center in Lausanne, Switzerland.

On 31 December 2015, PMI owned and operated 48 manufacturing facilities and sold products in more than 180 markets.

In 2015, PMI recorded total cigarette shipment volume of 847 billion units, had revenues, including excise taxes, of US\$ 73.9 billion, and held an estimated 28.7% of the international cigarette market excluding the People's Republic of China and the U.S. PMI's 2015 operating income was US\$ 10.6 billion.

PMI has an unequalled brand portfolio led by Marlboro, the world's number one international selling cigarette brand, and L&M, the third most popular brand. Including Marlboro and L&M, six of our brands rank in the top 15 international cigarette brands in the world. We have a strong mix of international and local products that appeal to a wide range of adult smokers.

PMI's global workforce of more than 80,000 employees is extremely diverse. We have historically expanded our business through a mixture of organic growth, geographic expansion and acquisitions, and have a successful track record of acquiring and integrating companies.

PMI is driven by four long-term goals that guide us as we grow our business in a responsible manner. Those goals are:

- to meet the expectations of adult smokers by offering innovative tobacco products of the highest quality available in their preferred price category;
- to generate superior returns to our shareholders through revenue, volume, income, and cash flow growth and a balanced program of dividends and share repurchases;
- to reduce the harm caused by tobacco products by supporting effective evidence based regulation and by developing products with the potential to reduce the risk of tobacco-related diseases; and
- to be a responsible corporate citizen and to conduct our business with the highest degree of integrity.

For more than a decade, PMI has dedicated significant resources to the development and scientific assessment of non-combustible alternatives to cigarettes. We refer to these products as Reduced-Risk Products (\*see further information) because they have the potential to reduce the risk of smoking-related diseases.

We are committed to responsibly delivering long-term sustainable growth and applying high standards wherever we operate. We also aim to be an industry leader in environmental sustainability and have set clear and measurable targets to improve our environmental performance. In 2010, we set ourselves the goal of reducing CO2 emissions in our manufacturing facilities by 20% by 2015, and reducing the carbon footprint of our value chain by 30% by 2020. We achieved our 2015 target and continue to work on developing company-wide emissions reduction targets based directly on climate science.

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## CC0.2

### Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

#### Enter Periods that will be disclosed

Thu 01 Jan 2015 - Thu 31 Dec 2015

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## CC0.3

### Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country

Select country
Argentina
Brazil
Canada
Colombia
Costa Rica
Czech Republic
Dominican Republic
Ecuador
Germany
Greece
Indonesia
Italy
Jordan
Kazakhstan
South Korea
Lithuania
Malaysia
Mexico
Netherlands
Pakistan
Philippines
Poland
Portugal
Romania
Russia
Senegal
Serbia
South Africa
Switzerland
Turkey
Ukraine
Venezuela
Rest of world

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**CC0.4****Currency selection**

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

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**CC0.6****Modules**

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.

If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

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**Further Information**

\*Reduced Risk Products (RRPs) is the term we use to refer to products with the potential to reduce individual risk and population harm in comparison to smoking combustible cigarettes. PMI's RRP's are in various stages of development, and we are conducting extensive and rigorous scientific studies to determine whether we can support claims for such products of reduced exposure to harmful and potentially harmful constituents in smoke, and ultimately claims of reduced disease risk, when compared to smoking combustible cigarettes. Before making any such claims, we will need to rigorously evaluate the full set of data from the relevant scientific studies to determine whether they substantiate reduced exposure or risk. Any such claims may also be subject to government review and approval, as is the case in the USA today.

**Module: Management****Page: CC1. Governance**

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**CC1.1**

**Where is the highest level of direct responsibility for climate change within your organization?**

Board or individual/sub-set of the Board or other committee appointed by the Board

**CC1.1a**

**Please identify the position of the individual or name of the committee with this responsibility**

The highest level of direct responsibility for climate change within PMI lies with the Product Innovation and Regulatory Affairs Committee of the Board of Directors. The Senior Vice-President Operations (SVP Operations) who is a member of PMI's Senior Management Team (our Corporate Executive Team) and reports to PMI's Chief Executive Officer, is delegated with operational responsibility.

The SVP Operations reviews PMI's objectives, strategies and action plans related to climate change with the CEO and the Product Innovation and Regulatory Affairs Committee of the Board of Directors.

**CC1.2**

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Corporate executive team	Monetary reward	Emissions reduction target Energy reduction target	The assessment of Environment, Health and Safety (EHS) results (which includes annual performance against our carbon footprint reduction targets) directly influences the annual performance rating of our SVP Operations and other members of our Corporate Executive Team. This covers the annual cash incentive

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		Efficiency target	compensation and long term restricted stock incentive compensation elements for those roles.
Management group	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction target	Our CEO specifically covers EHS results (including carbon footprint reductions against targets) in the assessment of our annual company-wide performance that is reviewed by the Compensation and Leadership Development Committee of the Board of Directors. Accordingly, these results are included in our overall performance rating which determines the cash and stock bonus pool for the management group and other eligible employees. Executive management covering EHS topics are specifically appraised each year for performance against targets, including those relating to climate change.
All employees	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Behaviour change related indicator	Specific company awards such as the Chairman's Award and Excellence Awards, which are either cash or stock, are available for Energy Managers, EHS Managers, project teams and other employees who are responsible for climate change related initiatives and improvements.
Energy managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency target	Managers, team members and others have energy efficiency and carbon footprint reduction targets set out in their annual performance objectives and are assessed against those targets in their annual performance appraisal. Energy efficiency and CO2 emissions reduction targets are set annually for at least three years for all of our manufacturing facilities.
Environment/Sustainability managers	Monetary reward	Emissions reduction project Emissions	Managers, team members and others have energy efficiency and carbon footprint reduction targets set out in their annual performance objectives and are assessed against those targets in their annual performance appraisal. Energy efficiency and

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		reduction target Energy reduction project Energy reduction target Efficiency target Environmental criteria included in purchases	CO2 emissions reduction targets are set annually for at least three years for all of our manufacturing facilities.
All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	Specific company awards such as “Above and Beyond the Call of Duty” (ABCD) awards for best practice initiatives in the areas of climate change, energy and carbon reduction.
Other: - employees in certain facilities such as our Operations Center	Monetary reward	Behaviour change related indicator	Employees from the Operations Center are encouraged to use public transportation. The annual fee for half-price railway subscription as well as a monthly public transport allowance is paid by the company for those employees who choose to use public transportation rather than commute in their private cars to work.
All employees	Recognition (non-monetary)	Emissions reduction project Energy reduction project Efficiency project Behaviour change related indicator	In 2015, many affiliates continued to perform voluntary awareness and promotion campaigns/ programs in order to increase employees’ active participation in EHS programs and to make carbon footprint reduction part of the company's culture. Awards and recognition for best practices form a core element of such campaigns.
Other: - employees in our Operations group (around 50,000 employees)	Recognition (non-monetary)	Emissions reduction project Energy reduction project Efficiency project Behaviour change related indicator	Operations employees also have the opportunity to earn awards for best practice initiatives in the areas of climate change, energy and carbon reduction. This forms part of our Operations “Lead, Lean and Learn” (3L) program which encourages innovation, continuous improvement and employee engagement.

**Further Information**

**Page: CC2. Strategy**

**CC2.1**

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

**CC2.1a**

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

<b>Frequency of monitoring</b>	<b>To whom are results reported?</b>	<b>Geographical areas considered</b>	<b>How far into the future are risks considered?</b>	<b>Comment</b>
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Global coverage with regional highlights: (Asia Pacific (AP), Latin America and Canada (LAC), Europe (EU) and Eastern Europe Middle East and Africa (EEMA). Material country and asset-specific risks are highlighted.	> 6 years	

**CC2.1b**

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

Company Level:

Our risk/opportunity identification and management process covers our entire value chain. Annually it addresses regulatory, physical climate and market risks and opportunities, which can also include company reputation and changing customer demands through:

- Carbon footprint reduction initiatives: driving global programs to reduce energy consumption and CO2 emissions which help to manage regulatory, reputational, and financial risk exposure. Programs include CO2 reductions from our manufacturing operations and we review our progress at least annually. We update our

carbon footprint every 2-3 years to ensure our risk/opportunity actions remain appropriate. For our products, key developments in product components or new products are assessed by a Life Cycle Assessment (LCA) process to identify risks/opportunities.

- Climate change risk assessment (CCRA): We have updated in 2015, our comprehensive CCRA for corporate and asset level physical risks and opportunities up to 2025-2030. The process includes key assets such as factories/warehouses, supplier assets (including ports, warehouses, tobacco growing regions and strategic suppliers). This information is reviewed with top management; it enables risk/opportunity identification and management at the company and asset level; it includes climate change aspects of regulatory and geopolitical risk.

Asset level:

As well as the global CCRA mentioned above, we also have environmental risk assessments (ISO14001 based in most operations) at the asset level to identify material risks/ opportunities. These include the need for flood risk management plans which we discuss with our insurers and use to develop mitigation plans. In tobacco agriculture, they form part of our Good Agricultural Practices program and result in risk/opportunity identification and management through country and supplier specific action plans.

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### CC2.1c

#### **How do you prioritize the risks and opportunities identified?**

Material issues are identified in a multidisciplinary way and include those which:

- have the highest potential impact and a realistic probability of occurrence;
- are most relevant to our enterprises and geographic locations; and
- are most important to our stakeholders.

In carbon footprint terms we have initially prioritized actions for those areas of our business which constitute more than 5% of our footprint, although we quantify and assess improvement action down to 1%.

We have set a financial threshold of US\$100K for materiality of environmental risk/opportunity at the asset level but in 2020+ risk forecasting terms, higher level risks are defined as those with a potential impact in excess of US\$2M or a raw material impact in excess of 1000 metric tonnes of tobacco leaf.

We review our risk/opportunity action plans and priorities every year during our integrated business planning process which includes 3-year and longer-term plans for our carbon footprint and climate change strategies. We use external sources such as consultancy and risk mapping tools as well as IPCC and academic publications to keep our information current.

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### CC2.1d

**Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future**

Main reason for not having a process	Do you plan to introduce a process?	Comment
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**CC2.2**

**Is climate change integrated into your business strategy?**

Yes

**CC2.2a**

**Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

Climate change strategy is included in our overall business strategy and Code of Conduct. It is integrated into normal business activities and forms part of our annual Long Range Planning process which reviews and sets business direction. The corporate EHS and Sustainability teams undertake annual strategy development which is based on review of prior year performance, regulatory/external developments, risk/opportunity assessments, stakeholder interest and business changes. The strategy is developed through functional management teams up to the Senior Management Team and CEO and is then cascaded. Climate change strategy reviews are held during the year, including with the Product Innovation and Regulatory Affairs Committee of PMI's Board of Directors. Our strategy is split into two main areas:

- 1) Minimizing our impact on the environment through carbon footprint reduction initiatives (mitigation).
- 2) Minimizing future environmental impact on our business through a climate change risk assessment process (adaptation).

We used Life Cycle Assessment (LCA) to establish our carbon footprint - the majority of our footprint comes from our scope 3 emissions, in particular the tobacco agriculture part of our value chain (~40% of our emissions). The size and importance of the impact from each element is a key input to our strategy development (mitigation). We also assess climate change risk across our value chain and focus areas are identified for adaptation. Our business depends on agriculture for key raw materials and therefore current and future changes in climate impacting sensitive crops (such as tobacco and clove) are important for our strategy.

Short-term strategy components:

- 1) Continuing investment in reforestation and Good Agricultural Practices, which includes country-specific action plans to reduce impacts in the short-medium term including reducing wood use in tobacco curing, promoting efficient and sustainable consumption of wood/fuels, eliminating the use of coal and seeking alternative fuels.
- 2) Procuring materials such as paper/boards from sustainable sources.
- 3) Reducing our CO2 from manufacturing operations by 20% by 2015 against our 2010 baseline and 30% by 2020.
- 4) Implementing a comprehensive Energy Management Program, including worldwide factory metering and targeting, energy assessments, key Energy Saving Projects (best practice cascading).
- 5) Implementing our renewable energy strategy which includes both green energy procurement and development of on-site renewable energy projects.

- 6) Reducing emissions and sharing best practices across our fleet and Logistics & Distribution.
- 7) Revising our direct materials supplier program covering sustainability topics and related criteria, including using the CDP Supply Chain program in 2015.
- 8) Undertaking LCAs of significant developments in cigarette/packaging components or potential new products.
- 9) Review/update of our carbon footprint every 3 years, continuing to measure the impact of developments in our business.
- 10) Review and refinement of our climate change risk assessment in 2015 with briefing to functional management on the impact of future projected changes and the need for adaptation measures.

Long-term strategy:

Our long term commitment on mitigation is to reduce our value chain carbon footprint by 30% by 2020 against our 2010 baseline and our Scope 1 and 2 by 60% by 2040. This is supported by sustained implementation and development of many of the short term actions described above. Development of our climate change risk assessment continues to inform future management decisions in terms agricultural impacts and forecast physical changes that may occur in certain climates and countries (adaptation focus). Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can potentially be relocated if some growing areas become more favorable than others in terms of climate. In the long term we will also integrate our customer and supplier strategies for sustainability and climate change to ensure that our entire value chain is aligned with our objectives. In 2015 we confirmed our commitment to develop science-based emissions reduction targets and now include our first in this disclosure.

How this strategy gains us strategic advantage:

As the leading international cigarette company, our climate change strategy has a key role in enabling our business efficiency which keeps us ahead of our competitors and supports our long term sustainability, our KPIs are amongst the best in our sector. We are able to assure our investors that our risks and opportunities are well managed. We have taken steps to align with our customer expectations on climate change including the development of our carbon footprint and our target to reduce that footprint by 30% by 2020. We will continue to work with trade customers, such as Tesco (Tesco Supply Chain strategy for carbon footprint reduction), so that we can exceed their expectations in this area. In terms of our products, we make sure that we have the right information to take future decisions on potential strategic advantage by considering the environmental impacts of new products or product developments through LCA. We have implemented global capacity and footprint planning which improves our flexibility and resilience.

Substantial business decisions influenced by climate change:

- a) We committed to science-based emissions reduction target development and were involved in the CDP Road to Paris discussions - we attended and supported an ambitious deal at the Paris climate conference in 2015. Additionally we made key decisions like joining the UN Global Compact. This is a change in our business approach and demonstrates our determination to play an active role in the sustainability agenda.
- b) Continuing investment in our Energy Management Program which allows for a longer term return on investment when there are additional justified benefits such as climate change impact reduction. This program includes over US\$70M estimated investment in improvement projects between 2010 and 2015.
- c) Purchasing green electricity to help mitigate our climate change impact - this is an important business decision as there is no financial payback for the increased cost of green electricity in most cases.
- d) Embedding Environmental Sustainability in our Good Agricultural Practices. Specifically in 2015 we decided to aim for the following by 2020: 70% increase of efficiency in CO2 emissions per kg of cured tobacco leaf compared to 2010; Zero coal usage for tobacco curing; no deforestation of old growth forest due to the growing and curing of tobacco we purchase.

Please explain why climate change is not integrated into your business strategy

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**CC2.2c**

**Does your company use an internal price of carbon?**

No, but we anticipate doing so in the next 2 years

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**CC2.2d**

Please provide details and examples of how your company uses an internal price of carbon

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**CC2.3**

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Trade associations  
Other

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**CC2.3a**

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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**CC2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

Yes

**CC2.3c**

**Please enter the details of those trade associations that are likely to take a position on climate change legislation**

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Trans-Atlantic Business Council	Consistent	Their Energy and Climate Working Group states: "Energy is irreversibly tied to climate. In this realm, transatlantic coordination of energy policies and climate action targets could yield substantial results, as both the US and EU are the world's leading energy consumers."	Our trade association memberships relate to specific business priorities which do not currently include climate change. We are not currently involved in, nor do we influence, trade association positions on climate change.
National Center for Asia-Pacific Economic Cooperation	Consistent	APEC have supported the development of an energy strategy study which includes: "+Expand and Diversify Supply of Energy Resources; +Promote Conservation and Improve Efficiency; +Promote Open and Efficient Energy Markets; +Clean Energy Use and Technology Innovation"	Our trade association memberships relate to specific business priorities which do not currently include climate change. We are not currently involved in, nor do we influence, trade association positions on climate change.
US ASEAN Business Council	Consistent	Their Energy Committee covers broad energy improvement topics including energy efficiency and renewables.	Our trade association memberships relate to specific business priorities which do not currently include climate change. We are not currently involved in, nor do we influence, trade association positions on climate change.
EconomieSuisse	Consistent	Translation from their website: "Natural resources are a central base for the prosperity of our society. Therefore resource efficiency is a primordial concern of the economy. Swiss companies act for a "greener economy" strongly and prove their aspirations with already world leading positions... "	Our trade association memberships relate to specific business priorities which do not currently include climate change. We are not currently involved in, nor do we influence, trade association positions on climate change.

**CC2.3d**

Do you publicly disclose a list of all the research organizations that you fund?

CC2.3e

**Please provide details of the other engagement activities that you undertake**

We work with not-for profit organizations and governments to support communities on environmental sustainability topics including sustainable forestry, reforestation, controlled use of pesticides in agriculture, sustainable rural living conditions and education; all of these can have an influence on climate change improvement, adaptation and mitigation.

Through specific contributions in 2015, PMI supported projects to protect and enhance natural resources, reforest the land, implement conservation agriculture, provide clean water, cater for food security, and improve the livelihoods of people living in rural communities. Selected examples include:

In Greece, PMI partnered with the Thessalonica Agricultural & Industrial Institute to provide training to young tobacco farmers to assist them in land stewardship, through the development of environmental awareness and the promotion of efficient management of available natural resources for high quality product and revenue turnover.

In Israel, PMI collaborated with Mi'tlut Le' cheirut to support a training program targeting people with special needs, in order to foster their personal welfare and integration in society by advancing their opportunities to access productive and respectable employment. The training focused on electronic equipment recycling, and on refurbishing and re-use of computers.

In Mexico, PMI supported an initiative of Natural Areas and Sustainable Development Civil Partnership aiming at creating and developing new business opportunities for small producers, while increasing their resources management capacity and knowledge of eco-technologies solutions. The contribution from PMI also supported the design of a production and commercialization strategy to market sustainable backyards products.

In Indonesia, PMI supported projects to increase natural disaster resilience, protect and enhance natural resources, and improve the livelihoods of people living in rural communities.

PMI contributed to raising awareness and understanding of the communities in regards to disaster preparedness. Focusing on minimizing the impacts when disaster occurs, the program included trainings, seminars, simulations and equipment provision.

With the objective of preserving the environment and generating additional income, PMI supported the Kaliandra Sejati Foundation's tree planting program benefiting the villagers living in the Sukorejo area.

PMI also partnered with the Indonesian Technology Innovation Foundation to ensure long-term conservation and sustainable use of natural resources. The Program is supporting the development of profitable and scalable environmentally-sustainable and socially-responsible small and growing businesses.

In addition, we signed-up to the UN Global Compact in 2015 and issued our first Communication on Progress in June 2016 which we use as an engagement tool along with signing up to UNGC Local Networks around the world. We are part of the WeMeanBusiness coalition and participated in the UNFCCC COP21 in Paris, speaking at side events and publishing articles regarding our commitments on climate change adaptation and mitigation including our intention to adopt science based targets, and our support for an ambitious deal to be made in Paris.

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**CC2.3f**

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

PMI operates within an overarching Code of Conduct to a set of internal policies - our Principles and Practices. These policies cover our mandatory requirements and processes in relation to Environment, Health and Safety (EHS) and Sustainability, which includes our climate change strategy; corporate contributions; and interaction with government officials, amongst others. As part of these management controls, we conduct due-diligence to ensure consistency with our Code and Principles, potential compliance and reputational issues when joining trade associations. Other external facing activities related to climate change are reviewed by our Corporate Affairs and Sustainability teams to ensure consistency with our climate change strategy.

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**CC2.3g**

**Please explain why you do not engage with policy makers**

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**Further Information**

We are already raising internal awareness on a price for carbon and also raising understanding of carbon impacts when assessing new projects for decision making. We are working on developing the appropriate price of carbon for our operations by undertaking a Marginal Abatement Cost Curve (MACC) assessment.

**Page: CC3. Targets and Initiatives**

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**CC3.1**

**Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?**

Absolute target  
Intensity target

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**CC3.1a**

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (market-based)	28%	33%	2010	258898	2015	No, but we are reporting another target which is science-based	This covers manufacturing facilities in our EU region where we have pursued opportunities for renewable energy. We have met this target.
Abs2	Scope 1+2 (market-based)	81%	30%	2010	743001	2020	Yes	This covers all our manufacturing facilities. The % of emissions in scope are 70% or higher. The target covers both scope 1 and 2 emissions and has a medium time frame (target year between 2020 - 2035 inclusive) The target meets at least a 2.1% year-on-year emissions reduction between base year and target year.
Abs3	Scope 1+2 (market-based)	100%	60%	2010	914050	2040	Yes	The % of emissions in scope are 100%. The target covers both scope 1 and 2 emissions and has a long time frame (target year beyond 2035) The target meets at least a 2.1% year-on-year emissions reduction between base year and target year.

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
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ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (market-based)	81%	20%	Metric tonnes CO <sub>2</sub> e per unit of production	2010	0.794	2015	No, but we are reporting another target which is science-based	This is a publicly declared target to reduce our emissions from our manufacturing facilities by 20% per million cigarettes equivalent by 2015, against our 2010 baseline. We have met this target. During 2016 we are continuing to review longer term and science-based emissions reduction intensity targets.
Int2	Other: Scope 1+2 (market based) + 3 (upstream and downstream)	100%	30%	Metric tonnes CO <sub>2</sub> e per unit of production	2010	6.324	2020	No, but we are reporting another target which is science-based	This is a publicly declared target to reduce our emissions from the entire value chain (Scope 1+2+3) by 30% per million cigarettes equivalent by 2020, against our 2010 baseline. During 2016 we are continuing to review longer term and science-based emissions reduction intensity targets and ambitious Scope 3 targets beyond 2020.

### CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	22	Decrease	1	Scope 3 reduction from fuel and energy related activities.

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int2	Decrease	30	Decrease	32	

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	100%	100%	We beat our target for 2015, achieving a 60% reduction

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs2	50%	80%	We have achieved 24% absolute reduction so far, against our 30% target.
Abs3	17%	40%	We have achieved 24% absolute reduction so far, against our 60% target.
Int1	100%	100%	We beat our target in 2015, achieving a 24% reduction
Int2	50%	10%	We have made significant progress in implementing programs to reduce our Scope 3 emissions, with a focus on our agricultural suppliers. We have not fully quantified our progress in 2015 but will do so over the next year. Therefore at this time we are conservatively estimating 10% progress against our target. We remain confident of meeting our 2020 target.

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#### CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

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#### CC3.2

**Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?**

No

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#### CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
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**CC3.3**

**Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)**

Yes

**CC3.3a**

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings**

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	23	
To be implemented*	435	41000
Implementation commenced*	166	47500
Implemented*	208	65000
Not to be implemented	33	

**CC3.3b**

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Transportation: fleet	At vehicle renewal, specifically sourcing more fuel efficient vehicles. Investment estimated at zero as no additional cost over and above buying a less efficient equivalent vehicle.	9000	Scope 1	Voluntary	400000	0	<1 year	6-10 years	
Low carbon energy purchase	Additional certified green electricity procurement in the EU, over and above existing purchases from 2014. Investment is the current additional amount paid for green electricity.	11000	Scope 2 (market-based)	Voluntary	0	96000	>25 years	Ongoing	
Energy efficiency: Processes	General improvements from our Energy Management Program over and above individual examples shown below. We have invested over \$10M, with individual projects usually averaging at a 3 year payback time.	30000	Scope 1 Scope 2 (location-based) Scope 2 (market-based)	Voluntary	3400000	10000000	1-3 years	11-15 years	
Energy efficiency: Processes	Heat recovery from process equipment in Indonesia	1000	Scope 1	Voluntary	33000	165000	4-10 years	11-15 years	
Energy efficiency: Building services	Improving the efficiency of chiller units in Indonesia	2700	Scope 1 Scope 2 (location-	Voluntary	299000	1170000	4-10 years	11-15 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
			based)						
Energy efficiency: Building services	Improving the efficiency of a steam system in Indonesia	1350	Scope 1	Voluntary	120000	102000	<1 year	11-15 years	
Energy efficiency: Processes	Heat recovery from process equipment in Russia	700	Scope 1	Voluntary	62000	420000	4-10 years	11-15 years	
Energy efficiency: Building services	Upgrading chiller units in Kazakhstan	470	Scope 1 Scope 2 (location-based)	Voluntary	93000	625000	4-10 years	11-15 years	
Energy efficiency: Building services	Optimizing heating, ventilation and air conditioning in Russia	12	Scope 1 Scope 2 (location-based)	Voluntary	3500	0	<1 year	11-15 years	
Low carbon energy installation	Installing solar power at our factories in Pakistan	360	Scope 2 (location-based)	Voluntary	25000	225000	4-10 years	11-15 years	
Energy efficiency: Building services	Installation of adiabatic humidification at our factory in Turkey	2400	Scope 1	Voluntary	360000	420000	1-3 years	6-10 years	
Energy efficiency: Processes	Heat Recovery from process equipment in Poland	1000	Scope 1	Voluntary	74500	128000	1-3 years	11-15 years	
Energy efficiency:	Installing low energy lighting in our factory in Brazil	220	Scope 2 (location-	Voluntary	140000	390000	1-3 years	6-10 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Building services			based)						
Low carbon energy installation	Conversion of fuels for curing barns from diesel to biomass in Italy	1800	Scope 3	Voluntary	162000	633000	4-10 years	11-15 years	
Energy efficiency: Processes	Curing barn upgrades to reduce firewood consumption in Philippines. Upgrades include improved insulation and vents; Venturi furnaces, improved flue pipes, dampers and chimney height	400	Scope 3	Voluntary	31000	238000	4-10 years	11-15 years	
Energy efficiency: Processes	Curing barn upgrades to reduce fuel consumption in Indonesia. Focus on improved furnaces for example using Venturi techniques.	950	Scope 3	Voluntary	93000	390000	4-10 years	6-10 years	
Low carbon energy installation	Conversion of fuels for curing barns to biomass in Ecuador	460	Scope 3	Voluntary	22500	90000	4-10 years	6-10 years	
Energy efficiency: Processes	Curing Barn Efficiency Program targeting to increase the number of bulk barns to improve efficiency of curing in Brazil	750	Scope 3	Voluntary	360000	1867570	4-10 years	21-30 years	
Energy efficiency: Processes	Reduce fuel consumption through the improvement of the curing infrastructure and refurbishing curing barns in Colombia.	700	Scope 3	Voluntary	39000	172000	4-10 years	6-10 years	

**What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Dedicated budget for energy efficiency	Through our Energy Management Program (over US\$70M budget estimated from 2010-2015) which has been developed to achieve the energy reduction and related greenhouse gas emissions targets of 20% by 2015 compared to our 2010 baseline for our manufacturing affiliates. Additionally, we have targeted a 30% reduction in our carbon footprint by 2020 compared to our 2010 baseline across our entire value chain (scope 1, 2 & 3) and a 60% reduction of Scope 1 and 2 by 2040.
Employee engagement	Through our objective setting, Long-Range Planning process and via employee communications, sharing of tools, guidance and best practices. We gave senior management briefings to all operations employees on sustainability in 2015 and run specific focus days and campaigns.
Compliance with regulatory requirements/standards	We take the opportunity of regulatory developments to achieve energy/emissions reductions (e.g. Switzerland - carbon tax exemption following a process upgrade) and in particular when investing in new processes/facilities (e.g. requirements for renewable energy or energy efficiency) for new facilities in Italy, Mexico and our UK offices.
Lower return on investment (ROI) specification	We consider a longer rate of return (4 years or more) for certain energy savings and renewable energy projects. During 2015 we started working on setting a price on carbon and identifying priority opportunities using a Marginal Abatement Cost Curve (MACC) methodology.
Other	The examples included in 3.3b above are just a few of the Good Agricultural Practices (GAP) activities implemented during 2015. GAP is a broad program covering our tobacco suppliers in 4 themes – Governance, People, Crop and Environment. It includes programs such as Integrated Production Systems which supports farmers to improve yield and farm efficiency on a variety of crops (particularly food crops), not just tobacco. Through GAP we have environmental improvement programs in all the countries where we source tobacco around the world these programs include: - Curing barn efficiency improvements - Fuel switching to greener fuels - Eliminating the use of coal - Increasing the use of biomass - Helping farmers become self-sufficient in their use of wood and in seeking traceable sources of sustainable wood.
Dedicated budget for other emissions reduction activities	We have developed a renewable energy strategy with an initial focus on low-carbon electricity uptake in the EU. We commenced the program in 2012 and continued to add more facilities during 2015. We continue to seek new opportunities to purchase greener energy.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

**Further Information**

CC4.1

Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	Pages 48 to 63	<a href="https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/Philip Morris International Communication on Progress 2015 Final.pdf">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/Philip Morris International Communication on Progress 2015 Final.pdf</a>	Our first Communication on Progress to the UN Global Compact
In voluntary communications	Complete	Our website <a href="http://www.pmi.com/carbon">www.pmi.com/carbon</a> The attachment gives selected copied content from our website.	<a href="https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/Selected clips from website.docx">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/Selected clips from website.docx</a>	
In other regulatory filings	Complete	10K Filing pages 6-7	<a href="https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/PMI 2016 10K.pdf">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/PMI 2016 10K.pdf</a>	
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	Page 4, section on Environment, Health and Safety - limited space in our report so we link readers to the climate change info on our website	<a href="https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/PMI_2015AR_CompleteAnnualReport-3.pdf">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC4.1/PMI_2015AR_CompleteAnnualReport-3.pdf</a>	

Further Information

Module: Risks and Opportunities

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	In various countries around the world, there are electricity and fuel-related levies or taxes and also CO2 related taxes such as the climate change levy in the UK and the CO2 tax in Switzerland. We can expect such initiatives to increase.	Increased operational cost	3 to 6 years	Direct	Likely	Low	For our global operations, such levies and taxes are estimated at around US\$2M	We are managing these risks by having a comprehensive Energy Management Program (energy and CO2 reduction program), including ambitious CO2 reduction targets for our manufacturing facilities. This program can	The costs associated are generally embedded in our Energy Management Program, with around US\$10M already invested specifically in energy monitoring and targeting and an associated \$200k/yr management cost. The wider

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>provide the basis for carbon tax exemptions (e.g. our Swiss affiliate is already exempted due to its energy reduction results) and reductions in the cost to comply with the EU ETS. Standards for the design of new facilities which include low carbon building design (e.g. low carbon building materials and energy efficient lighting) help minimize our risk exposure. Drivers like EU Emissions Trading Scheme (EU ETS) and the Energy Efficiency Directive have led us to consider process changes in our factories, for example replacement of older combustion</p>	<p>best practice sharing approach and individual energy/CO2 saving projects involve specific investments of approximately \$10M per year.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>equipment to newer more efficient plant that can potentially reduce our energy load to beneath the 20MW regulatory threshold. For example in 2014 we were able to delist a site from EU ETS as we moved below the total combustion capacity threshold at that site and we delisted an additional site in 2015. For a factory in Russia, following our internal energy and CO2 reduction targets means that the factory will already meet or exceed new state regulations such as the "Energy conservation and improving energy efficiency in the period up to</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	CO2 related schemes such as the EU Emission Trading Scheme (EU ETS) are regulatory frameworks that pose risk of increased operating costs to PMI. PMI owned and operated 3 manufacturing centers (in Germany, Netherlands and Portugal with total verified emissions of over 20,000 metric tonnes of CO2 in 2015) that are covered by the EU ETS in 2015, with Portugal moving out of the regulation during the year. We have other factories in the EU and EU accession countries which could also	Increased operational cost	3 to 6 years	Direct	Likely	Low	Based on 3 EU ETS factories in 2015 which reduced to 2 during the year, the annual cost of emissions allowances is expected to be up to \$50K in the short term. We will likely onboard a new site into EU ETS during 2016.	2020" law. We are managing these risks by having a comprehensive Energy Management Program (energy and CO2 reduction program), including ambitious CO2 reduction targets for our manufacturing facilities. This program can provide the basis for carbon tax exemptions (e.g. our Swiss affiliate is already exempted due to its energy reduction results) and reductions in the cost to comply with the EU ETS. Standards for the design of new facilities which include low carbon building	The costs associated are generally embedded in our Energy Management Program, with around US\$10M already invested specifically in energy monitoring and targeting and an associated \$200k/yr management cost. The wider best practice sharing approach and individual energy/CO2 saving projects involve specific investments of approximately \$10M per year.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>become subject to EU ETS following site developments or country accession to the EU in the future. Although the cost of EU ETS carbon credits have been lower in the past several years due to a large surplus of allowances, the cost of allowances is expected to increase due to stricter regulations and more significant long-term reforms to reduce oversupply. This could result in an increase in the operating cost of purchasing allowances in the future. There is a clear international trend towards stricter climate regulations. In addition to EU ETS, other</p>							<p>design (e.g. low carbon building materials and energy efficient lighting) help minimize our risk exposure. Drivers like EU Emissions Trading Scheme (EU ETS) and the Energy Efficiency Directive have led us to consider process changes in our factories, for example replacement of older combustion equipment to newer more efficient plant that can potentially reduce our energy load to beneath the 20MW regulatory threshold. For example in 2014 we were able to delist a site from EU ETS as we moved below the total combustion capacity threshold at that</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	countries and regions are considering and, in some cases, developing similar programs, compatible with EU ETS, in an effort to form a global carbon market. Tighter regulations in this area could indirectly influence our supply chain with regard to energy supply, and increase in electricity prices.							site and we delisted an additional site in 2015. For a factory in Russia, following our internal energy and CO2 reduction targets means that the factory will already meet or exceed new state regulations such as the “Energy conservation and improving energy efficiency in the period up to 2020” law.	
Product labelling regulations and standards	Regulations requiring carbon labelling on products could impact PMI for both conventional cigarettes and our Reduced-Risk Products (RRPs), which may include electronic components. The business effect could be in two categories a)	Increased operational cost	3 to 6 years	Direct	Unlikely	Low	Should product labeling be required for our future products we estimate a cost of over \$250K excluding any additional manufacturing costs associated with labeling.	With respect to our products, potential significant developments in cigarette and packaging components or potential new products are assessed through a LCA process for risks and opportunities in relation to our	We undertook LCA projects, including revisiting elements of our carbon footprint assessment at a cost of approximately \$100K in 2015.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	increased operating cost and b) product differentiation (which could also be an opportunity for PMI).							carbon footprint. We use external experts to assist us in this process.	
Product labelling regulations and standards	Currently there are no global, climate change-related, labeling standards that could coherently be applied to tobacco products. If such requirements were introduced then uneven or inconsistent implementation by regulators could result in some adverse impacts on PMI.	Reduced demand for goods/services	3 to 6 years	Direct	Unlikely	Low	Should product labeling be required for our future products we estimate a cost of over \$250K excluding any additional manufacturing costs associated with labeling.	With respect to our products, potential significant developments in cigarette and packaging components or potential new products are assessed through a LCA process for risks and opportunities in relation to our carbon footprint. We use external experts to assist us in this process.	We undertook LCA projects, including revisiting elements of our carbon footprint assessment at a cost of approximately \$100K in 2015.
General environmental regulations, including planning	Many of our factories are subject to general environmental regulations, including emissions limits and permitting. Any new factories	Increased capital cost	3 to 6 years	Direct	Likely	Low	Tighter environmental regulation in the future could cost over \$1M per year across our global facilities.	We are managing these risks by having a comprehensive Energy Management Program (energy and CO2 reduction	The costs associated are generally embedded in our Energy Management Program, with around US\$10M already invested

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>and other facilities will need to ensure that environmental considerations are fully addressed at the design stage. For example, the Energy Efficiency Directive in the EU and other local regulations have an impact on the design of new facilities that we are currently building in Italy.</p>							<p>program), including ambitious CO2 reduction targets for our manufacturing facilities. This program can provide the basis for carbon tax exemptions (e.g. our Swiss affiliate is already exempted due to its energy reduction results) and reductions in the cost to comply with the EU ETS. Standards for the design of new facilities which include low carbon building design (e.g. low carbon building materials and energy efficient lighting) help minimize our risk exposure. Drivers like EU Emissions Trading Scheme (EU ETS) and the</p>	<p>specifically in energy monitoring and targeting and an associated \$200k/yr management cost. The wider best practice sharing approach and individual energy/CO2 saving projects involve specific investments of approximately \$10M per year.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>Energy Efficiency Directive have led us to consider process changes in our factories, for example replacement of older combustion equipment to newer more efficient plant that can potentially reduce our energy load to beneath the 20MW regulatory threshold. For example in 2014 we were able to delist a site from EU ETS as we moved below the total combustion capacity threshold at that site and we delisted an additional site in 2015. For a factory in Russia, following our internal energy and CO2 reduction targets means that the factory will</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								already meet or exceed new state regulations such as the "Energy conservation and improving energy efficiency in the period up to 2020" law.	
Emission reporting obligations	In various countries around the world we are subject to electricity and fuel related reporting obligations such as the National Greenhouse and Energy Reporting requirement in Australia and new tax code related regulations in the Ukraine and Germany.	Increased operational cost	3 to 6 years	Direct	Likely	Low	More environmental reporting obligations in the future could cost approximately \$1M per year across our global facilities.	We have purchased and installed data collection and reporting software for our energy and climate change data. This covers all our manufacturing facilities and staff are trained as both data contributors and data validators. This system undergoes internal and external data audit.	Project costs of \$1M, ongoing operational and maintenance costs of up to \$200k per year.

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	Supply Chain-Tobacco Leaf: Tobacco leaf growing is strongly influenced by physical climate change such as changes in temperature, precipitation and cyclones (hurricanes and typhoons). PMI sources tobacco from more than 30 countries across the world. Increased drought / flooding could disturb the tobacco leaf life cycle stages (seedling, transplanting, growing, harvesting). The yield, quality and availability of the tobacco crop could be influenced by the seasonal frequency and the intensity of such extreme rainfall events and even	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low-medium	Depending on the size of the area impacted, the financial implications would vary significantly, however the incremental financial implications from these risks are currently assessed to be low (less than 10 million US\$). However, in an extreme case where simultaneous crop failures or tobacco shortages occur the potential implications are around 100 million US\$; such a situation is very unlikely.	Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can also be relocated if some growing areas become more favorable than others. In addition, our substantial inventories of tobacco leaf can help to mitigate against short term impacts and adjustments to our procurement patterns can also be made. We are also researching drought tolerant seed varieties. Other tools that we use in	The data from our risk assessments identifies key areas which could be the base of longer term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that with external expert support, internal time and resources

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>events such as unseasonal hailstorms which occurred in Brazil in 2015. This could change our crop buying pattern and result in increased operational cost. Extreme rainfall may require pumping of excess water, similarly, extreme droughts could require long-term irrigation, both of which increase energy consumption, and the tobacco production cost. With respect to our supply chain, the transportation of raw materials and finished goods, as well as availability of ports could be interrupted; similarly damage to stocks in storage facilities such as warehouses would have knock-on impacts on the productivity of our manufacturing</p>							<p>identifying significant risks and/or opportunities from climate change include the following: Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation. The results of such assessments are used to inform our long term business planning. We have just embarked on an assessment of water risk to</p>	<p>estimated at \$100,000. The cost of implementing GAP is estimated at several million US\$. Insurance costs are not specific to climate change.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>centers. Extreme rainfall could cause damage to buildings including our manufacturing centers which would increase our cost both in management and insurance fees. The risk of damaged goods and impacts on manufacturing centers and our supply chain could weaken our ability to efficiently supply products to our customers.</p> <p>Overall, the well-being of societies, for example farmers in tobacco growing areas, would be impacted. PMI's operations are widely spread, mitigating the effects of severe catastrophic climatic disruption. Furthermore, PMI's business continuity management plans are designed to mitigate the consequence of</p>							<p>leaf production facilities and are planning to develop a water stewardship strategy which will incorporate the findings from the climate risk assessment in order to better understand our exposure to changes in water availability in the future at a catchment and thereby develop measures to support farmers and/or remove the risk from our supply chain.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	supply chain interruption and disruption caused by building damage, and or stock/material damage.								
Change in precipitation extremes and droughts	Supply Chain: Clove is an important raw material for PMI to use in our local kretek brands. Indonesia produces over 70% of the world's cloves. It takes at least 5-7 years for clove trees to become productive and 20-40 years before they reach peak production. Yields are complex; harvests can vary by up to 60% over a 4 year harvest cycle. Clove production is weather sensitive, projected increases in temperature, dry-spell duration, intensification of the wet season and increasing soil-	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low-medium	Depending on the size of the area impacted, the financial implications would vary significantly, however the incremental financial implications from these risks are currently assessed to be low (less than 10 million US\$). However, in an extreme case where simultaneous crop failures or clove shortages occur the potential implications	Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can also be relocated if some growing areas become more favorable than others. In addition, our substantial inventories of tobacco leaf can help to mitigate against short term impacts. Adjustments to our procurement patterns can also be made. Other tools that	The data from our risk assessments identifies key areas which could be the base of longer term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>moisture levels would impact clove growing areas such as Indonesia (e.g. damages to bud development; more pest and disease problems from increased rainfall, and oscillation between drought / flooding presenting difficulties to small scale farmers and clove trees). This would reduce the yield, supply and increase the price of cloves.</p>						<p>are around 100 million US\$; such a situation is very unlikely.</p>	<p>we use in identifying significant risks and/or opportunities from climate change include the following: Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation, including Water risk assessments. The results of such assessments are used to inform our long term business planning.</p>	<p>with external expert support, internal time and resources estimated at \$100,000. The cost of implementing GAP is estimated at several million US\$. Insurance costs are not specific to climate change.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	A change in the mean (average) temperature could affect our own operations and those of our suppliers globally (manufacturing, agriculture and other business operations). In terms of agricultural impact, the quality and yield of tobacco crop and other raw materials we use could be affected. While a slight increase in average temperature can lengthen the tobacco growing season in some regions, it can adversely impact the yield and quality of the crop where summers are long and already hot. An increase of average temperature may cause drought, which in turn results in crops needing irrigation. This would impact our energy	Increased operational cost	>6 years	Direct	Virtually certain	Low-medium	Depending on the size of the area impacted, the financial implications would vary significantly, however the incremental financial implications from these risks are currently assessed to be low (less than 10 million US\$). However, in an extreme case where simultaneous crop failures or tobacco shortages occur the potential implications are around 100 million US\$; such a situation is very unlikely.	Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can also be relocated if some growing areas become more favorable than others. In addition, our substantial inventories of tobacco leaf can help to mitigate against short term impacts. Adjustments to our procurement patterns can also be made. Other tools that we use in identifying significant risks and/or opportunities from climate change include the following:	The data from our risk assessments identifies key areas which could be the base of longer term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that with external expert support, internal time and resources estimated at \$100,000. The cost of

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	consumption, and the tobacco production cost. Overall, change in mean (average) temperatures from climate change would also increase the use of air conditioning or heating systems, leading to increases in demand for energy.							Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation, including Water risk assessments. The results of such assessments are used to inform our long term business planning.	implementing GAP is estimated at several million US\$. Insurance costs are not specific to climate change.
Sea level rise	Rising sea levels in leaf growing areas, as well as near to manufacturing and warehouse centers (e.g. the Netherlands, and	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low	The financial implications of these risks vary depending on the asset that is impacted.	Adjustments to our procurement patterns can be made and inventories managed. Other	The data from our risk assessments identifies key areas which could be the base of longer

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>some Asian manufacturing centers), could impact our leaf sourcing (yields and quality) and disrupt our supply chain distribution. This could cause sourcing delays and manufacturing impacts which would result in reduction/disruption to production volumes. Rising sea levels could also impact ground water, which is used for consumption and irrigation. Water treatment processes (chemical/physical) for consumption, irrigation and for manufacturing use could be costly and increase our energy consumption. Rising sea levels could also leave people (farmers, manufacturing employees, and others) who live in</p>						<p>The threat of flooding in the Netherlands and cyclones in the Philippines could cause damage in our manufacturing and warehouse sites (estimate US\$10-20M for each location). Damage to raw materials and finished goods could escalate to around US\$100M but that is considered very unlikely.</p>	<p>tools that we use in identifying significant risks and/or opportunities from climate change include the following: Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation, including Water risk assessments. The results of such assessments are used to inform our long term business</p>	<p>term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that with external expert support, internal time and resources estimated at \$100,000. The cost of implementing GAP is estimated at several million US\$. Insurance costs are not</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	low lying areas in danger of being flooded, resulting in people movement.							planning.	specific to climate change.
Induced changes in natural resources	Change in climatic variability and extreme events such as changes in the frequency and severity of heat waves, drought, floods and hurricanes could affect the distribution of pests and beneficial predators. This could affect the yield and quality of tobacco crops and of other raw materials we use. Areas at increased risk may include China, the Philippines, some African countries and the Eastern USA where we source tobacco.	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low	Depending on the size of the area impacted, the financial implications would vary significantly, however the incremental financial implications from these risks are currently assessed to be low (less than 10 million US\$). However, in an extreme case where simultaneous crop failures or tobacco shortages occur the potential implications are around 100 million US\$; such a	Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can also be relocated if some growing areas become more favorable than others. In addition, our substantial inventories of tobacco leaf can help to mitigate against short term impacts. Adjustments to our procurement patterns can also be made. Other tools that we use in identifying significant risks	The data from our risk assessments identifies key areas which could be the base of longer term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that with external expert support,

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							situation is very unlikely.	and/or opportunities from climate change include the following: Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation, including Water risk assessments. The results of such assessments are used to inform our long term business planning.	internal time and resources estimated at \$100,000. The cost of implementing GAP is estimated at several million US\$. Insurance costs are not specific to climate change.
Change in precipitation	Specific impact of El Niño during	Reduction/disruption in production	Up to 1 year	Direct	Virtually certain	Medium	For our tobacco	Adjustments to our	The data from our risk

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
extremes and droughts	2015.	capacity					supply under direct contract with PMI, El Niño impacted in the following ways in 2015: in Latin America, excessive rainfalls resulted in a crop volume reduction of approximately 15-20%, corresponding to an equivalent financial loss of more than US\$ 40M. In the Philippines, the impact was severe drought resulting in a volume reduction of approximately 15%, corresponding to an equivalent financial loss of more than US\$ 5M.	procurement patterns can be made and inventories managed. Our agricultural supply chain is widely spread around the world, which helps to mitigate against climate related risks; tobacco crops can also be relocated if some growing areas become more favorable than others. In addition, our substantial inventories of tobacco leaf can help to mitigate against short term impacts. Adjustments to our procurement patterns can also be made. Other tools that we use in identifying significant risks	assessments identifies key areas which could be the base of longer term actions. We have already identified our key assets at risk of climate change impacts (both PMI owned and in our entire value chain). We invested around US\$200,000 in this global risk assessment and the main costs in 2015 were to update that with external expert support, internal time and resources estimated at \$100,000. The cost of implementing GAP is

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>and/or opportunities from climate change include the following: Climate change risk assessments, Facility risk management (insurance assessments), Environmental risk assessments (ISO14001), Due Diligence Assessments and Good Agricultural Practices (GAP) Assessments and implementation, including Water risk assessments. The results of such assessments are used to inform our long term business planning.</p>	<p>estimated at several million US\$. Insurance costs are not specific to climate change.</p>

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	Today's consumers expect to see more sustainable products with a lower environmental impact. Ever increasing environmental awareness of consumers influences their product selection and buying decisions. It is widely believed that consumers will continue to place increased value on recyclability and the perceived environmental credentials of packaging – at the same time, demand for proof of	Reduced demand for goods/services	>6 years	Direct	Unlikely	Low-medium	Environmental reputation may become a more significant factor in our customers' purchasing decisions in the future, but at this time, we do not see this risk as significant. We are also aware that regulatory and reputational risk may impact the decisions of our stakeholders, specifically our consumers and shareholders. If these risks were to materialize then they could impact our business by several millions of dollars.	Corporate Sustainability and climate change strategy, programs and transparent communications including our website, our UN Global Compact Communication on Progress, this CDP, carbon footprint of new product (e.g. biodegradable filters) and packaging developments. We are also looking at initiatives – including strengthening our product LCA – that can help us build closer cooperation within our value chain to help our stakeholders understand	The internal costs associated with these actions are estimated at US \$1-2M. Research costs for product developments such as for biodegradable filters can be US\$ 1-2M.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>sustainability claims could grow, for instance in the demand for LCA data. Practices that impact climate change could be seen as a brand differentiator for consumers and the environmental reputation of companies and brands could play an increasing role in product demand. Litter from cigarette butts and packaging is an issue that comes under regular public scrutiny. In many of our markets, such as the Philippines, Japan and Switzerland, PMI actively supports</p>							<p>environmental impacts of different packaging alternatives.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	programs and campaigns for responsible litter disposal.								
Changing consumer behaviour	Consumers' increased awareness and demands for environmental sustainability claims on the products they buy could drive more manufacturers to display their environmental performance on their packaged products. While this is an opportunity for manufacturers to develop more sustainable products and communicate to their consumers, it could be a challenge for PMI and in general for the tobacco industry due to	Reduced demand for goods/services	>6 years	Direct	Unlikely	Low-medium	Environmental reputation may become a more significant factor in our customers' purchasing decisions in the future, but at this time, we do not see this risk as significant. We are also aware that regulatory and reputational risk may impact the decisions of our stakeholders, specifically our consumers and shareholders. If these risks were to materialize then they could impact our business by several millions of dollars.	Corporate Sustainability and climate change strategy, programs and transparent communications including our website, our UN Global Compact Communication on Progress, this CDP, carbon footprint of new product (e.g. biodegradable filters) and packaging developments.	The internal costs associated with these actions are estimated at in excess of US \$1M.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	packaging labeling restrictions on tobacco products. While this risk is not yet materialized, examples of packaging labeling restrictions are discussed or in some cases already in practice in Australia, EU and Canada.								
Reputation	There is a risk that society does not view our company positively with respect to our environment and climate change credentials. The investor and consumer perceptions about PMI's climate change actions could affect the reputation and	Reduced demand for goods/services	>6 years	Direct	Unlikely	Low	Environmental reputation may become a more significant factor in our customers' purchasing decisions in the future, but at this time, we do not see this risk as significant. We are also aware that regulatory and reputational risk may impact the decisions of	Corporate Sustainability and climate change strategy, programs and transparent communications including our website, our UN Global Compact Communication on Progress, this CDP, carbon footprint of new product (e.g. biodegradable filters) and packaging	As an example we will have invested over US\$70M in our Energy Management Program from 2010-15, typically an investment of around \$10M each year on specific improvement projects.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	consumer demand for our products and may limit investment opportunities. While we consider this risk to be low, PMI focuses on mitigating this risk by continuously reducing our Scope 1, 2 and 3 emissions and focusing on other areas of environmental sustainability.						our stakeholders, specifically our consumers and shareholders. If these risks were to materialize then they could impact our business by several millions of dollars.	developments. Our programs to drive our performance improvement, such as the Energy Management Program and our renewables strategy are particularly important.	
Fluctuating socio-economic conditions	Physical changes in climate such as global warming are projected to result in decreased water availability and crop productivity in many parts of the world. There is also a risk that the	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low	Fluctuating socio-economic conditions exacerbated by climate change related issues could increase price sensitivity and lead to the need to adjust product portfolios. If these risks were to materialize	General business risk management and forecasting - managing our supply chain and making adjustments to our procurement patterns and inventory management.	This is an internal cost within the general running of our business and is not separately quantifiable.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>exacerbation of the recent economic crisis due to climate change could disrupt tobacco growing / production capacity and also further impact consumer's disposable income. For example, Africa's vulnerability to climate change is linked to the strength of the agricultural industry in many African countries; PMI currently sources around 20% of its tobacco from Africa. Climate change could impact land and resource availability (due to migration to cities) as well as resulting in lower crop</p>						<p>then they could impact our business by several millions of dollars.</p>		

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	yields and quality. This in turn could impact PMI's tobacco sourcing strategy.								
Increasing humanitarian demands	The risk that climate change related issues cause agricultural prioritization for food crops over non-food crops. Extreme weather conditions such as droughts and heavy precipitation, linked to the population size of communities could be disrupting factors to non-food production capacity, as the growing demand for food crops could be prioritized over non-food crops. Specifically in	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low-medium	It is possible that future regulatory initiatives could seek to prioritize agricultural food crops (in terms of water supply, land availability etc.) over non-food crops, thereby impacting the security of our supply chain. If this risk were to materialize then it could impact our business by many millions of dollars.	PMI has developed a Good Agricultural Practices (GAP) program to specifically address and minimize the impacts of tobacco farming and protect our supply chain in the long term. GAP includes a sections on water use and minimization which also covers security of supply issues. Many projects that we are involved in support water security measures across communities, not just focused on tobacco growing	This is largely an internal cost which is estimated at over US\$1M per year. In terms of GAP activities, we have invested around \$20M to date for one set of programs and in an average year expect to invest \$2-5M.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Africa there is a risk in some areas that shortages of wood could lead to prioritized consumption for other purposes and thereby restrict the use of wood as a fuel for curing tobacco.							(e.g. water dams in Malawi). In addition, during 2015 we continued to implement initiatives such as Integrated Production Systems which supports farmers to improve yield and farm efficiency on a variety of crops (particularly food crops), not just tobacco. GAP also focuses on improving the sustainability of fuels used for curing tobacco.	

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

**Page: CC6. Climate Change Opportunities**

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CC6.1

**Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

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CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	Expansion of EU ETS or similar schemes to other countries and regions (e.g. Australia, Mexico) or in the growth of other PMI factories in the EU or EU accession countries. There is the potential to use our experience of these schemes to enable performance ahead of allocated emissions and thereby generate carbon credits. Starting from 3 EU affiliates (Netherlands, Germany, and Portugal (de-listed in 2015)) which were in the EU ETS in 2015, there is the potential to trade internally with other PMI affiliates and generate Energy and CO2 savings.	Reduced operational costs	3 to 6 years	Direct	More likely than not	Low	Estimated at up to US\$1M based on current financial exposure in the EU and potential future inclusion of larger manufacturing centers such as in Russia.	We track this through our Energy Management Program and regulatory radar screen. Specifically we have deployed energy monitoring and targeting software in our facilities so that energy intensities are understood by process and best practices can be shared. This means that the lessons learnt at regulated facilities can be readily applied in other locations.	There is no incremental cost associated with the Energy Management Program as we are already implementing it for energy reduction purposes. However, the cost of this program is over US\$70M from 2010-2015. The energy monitoring and targeting software also required installation of meters and has cost \$10M overall with \$200k spent in 2015 on software maintenance and upgrades.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	Subsidies for renewable Energy generation have been developed in different countries and we factor in these subsidy plans to our cost-benefit analyses for pertinent projects so that improved return on investment can potentially be delivered. Cost-Benefit analyses and renewable energy assessments have been performed in Turkey, Philippines, Portugal and Poland. We also have the potential to identify and support Clean Development Mechanism (CDM) project opportunities for our tobacco leaf suppliers.	Other: Reduced operational costs and Energy security	3 to 6 years	Direct	More likely than not	Low	Estimated at over US\$1M.	We track this through our Energy Management Program and regulatory radar screen. Specifically we have deployed energy monitoring and targeting software in our facilities so that energy intensities are understood by process and best practices can be shared. This means that the lessons learnt at regulated facilities can be readily applied in other locations.	There is no incremental cost associated with the Energy Management Program as we are already implementing it for energy reduction purposes. However, the cost of this program is over US\$70M from 2010-2015. The energy monitoring and targeting software also required installation of meters and has cost \$10M overall with \$200k spent in 2015 on software maintenance and upgrades.
Fuel/energy taxes and	Compliance with country specific	Other: Reduced	3 to 6 years	Direct	More likely than not	Low	Estimated at up to	We track this through our	The cost for ISO 50001

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
regulations	<p>legislation provides PMI with the opportunity to reduce energy consumption and lower our CO2 emissions, and therefore reduce our operational cost. Such opportunities exist in the form of: a) Energy taxes, such as in Germany, which encouraged PMI to implement an Energy Management Program to ISO 50001 that will allow us to reduce energy tax costs. b) EU ETS - 3 EU affiliates (Netherlands, Germany, and Portugal (de-listed in 2015)) have the potential to trade internally with other PMI affiliates that could generate Energy savings. Opportunities are linked to widening markets and EU ETS carbon trading processes to include EU accession countries where PMI has facilities. Also, in Switzerland our affiliate obtained CO2 tax exemptions due to</p>	operational costs and Energy security					US\$800,000 energy tax reduction in Germany based on ISO 50001 certification.	Energy Management Program and regulatory radar screen. Specifically we have deployed energy monitoring and targeting software in our facilities so that energy intensities are understood by process and best practices can be shared. This means that the lessons learnt at regulated facilities can be readily applied in other locations.	development and certification is estimated to be no more than US\$50,000 per location.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	energy saving objectives and programs that are in place within PMI. c) Energy Efficiency Directive – promoting energy reduction at source (all EU factories) and reviewing the potential for combined heat and power. d) Incentives & Infrastructure/Buildings upgrade – for renewable energy and buildings upgrade e) Energy Labeling Directive – for PMI’s conventional products and potential future Reduced-Risk Products (which can have related electronic components).								

CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Tobacco curing is an important step in tobacco production. Around 8 metric tonnes of wood can be used per tonne of flue-cured tobacco. Due to potential physical climate changes, such as an increase in temperature, PMI may have a reduced need for energy (tonnes of wood), or other energy sources (such as renewable technologies) could become more cost effective. While this is an opportunity for the future, we already have focused programs to increase the efficiency of our curing barns. Just in recent years, (including 2015), we have helped our tobacco suppliers finance	Increased production capacity	>6 years	Indirect (Supply chain)	About as likely as not	Low	The financial benefit is in terms of reduced fuel wood costs for tobacco farmers, however corresponding reductions in the cost of production can lead to a benefit for PMI in the order of US\$10M.	Through implementation of our Good Agricultural Practices (GAP) program. This comprehensive program includes mandatory requirements for our tobacco suppliers and is supported by the PMI Leaf Department who provide specific guidance on implementation to regional agronomy teams. Curing Barn improvement case studies and guidance are provided.	Barn efficiency improvement costs can be as little as a few hundred dollars per barn but overall carbon improvement programs for farmers run to approximately US\$10M per year.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	efficiency improvements for over 10,000 curing barns, generating an estimated saving of more than 500,000 trees equivalent.								
Change in mean (average) precipitation	Supply Chain-Tobacco Leaf: Tobacco leaf growing is strongly influenced by physical climate change such as changes in precipitation. PMI sources tobacco from around 30 countries across the world. Increased precipitation could impact the tobacco leaf life cycle stages (seedling, transplanting, growing, harvesting). Water-short leaf growing areas could benefit from increases in precipitation (i.e. level, timing and variability) due to increases in soil	Increased production capacity	>6 years	Indirect (Supply chain)	About as likely as not	Low	Increased tobacco yields can provide benefits in excess of US\$10M.	We continually review promising tobacco leaf growing areas and assess if climate change elements could favor increased yield. We implement our Good Agricultural Practices (GAP). This comprehensive program includes mandatory requirements for our tobacco suppliers and is supported by the PMI Leaf Department who provide specific guidance on implementation to regional agronomy teams. We are also actively researched drought tolerant seed varieties in 2015.	The cost of this work is mainly internal time and resources, and is estimated at US\$1M per year. Implementation of specific programs like continuous production is additional.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	moisture. This could positively impact the tobacco crop patterns; crop production capacity and quality. Continuous Production (crop production all year round) could become more applicable.								
Change in mean (average) precipitation	Supply Chain- Clove production: Clove is an essential raw material for PMI to use in our local kretek brands. Indonesia produces over 70% of the world's cloves. It takes at least 5-7 years for clove trees to become productive and 20-40 years before they reach peak production. Yields are complex; harvests can vary by up to 60% over a 4 year harvest cycle. Clove production is	Increased production capacity	>6 years	Indirect (Supply chain)	About as likely as not	Low	Increased clove yields can provide benefits in the order of US\$10M.	We review promising clove growing areas and assess if climate change elements could favor increased yield. We implement our Good Agricultural Practices (GAP). This comprehensive program includes mandatory requirements that we adapt for clove suppliers and is supported by the PMI Leaf Department who provide specific guidance on implementation to regional agronomy	The cost of this work is mainly internal time and resources, and is estimated at US\$1M per year. Implementation of specific programs is additional.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	weather sensitive, and climate changes such as steady rainfall could provide steady wet season for clove growing areas increasing the clove production volume and improving the crop quality.							teams.	

CC6.1c

Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	We expect that by tackling sustainability and climate change issues appropriately, our company reputation could be enhanced. Opportunities for PMI include the following: 1)	Increased demand for existing products/services	1 to 3 years	Direct	About as likely as not	Low-medium	As an estimate, US\$10M.	Corporate Sustainability and climate change strategy, programs and communications including our UN Global Compact Communication on Progress, our website, social	The internal costs associated with these actions are estimated at US\$2M.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Appropriate product labeling of sustainability performance for PMI's customers and consumers. This could be an outcome of a rigorous verified product LCA of PMI's products to identify their life cycle CO2 emissions performance. Displaying such sustainability performance on our products could enhance the differentiation of PMI's brands and increase the company's competitive advantage. 2) Environmental information for our key accounts/retailers: to meet the growing interest of our key accounts/retailers in sustainability practices, we continue to increase our emphasis on</p>							media and this CDP report.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>our products' LCA within our value chain and provide company information on our sustainability performance. 3) Supply Chain engagement - we are working towards strengthening our product LCA process to help us build closer cooperation within our supply chain and help our partners to understand the upstream environmental impacts of different material alternatives (e.g. for packaging components) and the direction PMI is taking in product developments. In PMI, we closely follow consumer and market sustainability trends and engage with our suppliers on the development of new materials to be in line with these</p>								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	growing trends. Leading performance in these areas could attract new investors and also increase our attractiveness as an employer.								
Changing consumer behaviour	Consumers are increasingly interested in climate change and sustainability aspects of products and many of our trade customers reflect that interest. By working with our customers, sharing company performance strategies and assessing changes due to product developments, we could provide more detailed information on our environmental performance. Specifically, environmental performance information relating to individual	New products/business services	1 to 3 years	Direct	More likely than not	Low	Successful product developments could provide benefits of over US\$10M.	Corporate Sustainability and climate change strategy, programs and communications including our UN Global Compact Communication on Progress, our website, social media and this CDP report, carbon footprint/LCA reviews of new product and packaging developments. Consumer insights research into the potential for eco product developments.	The internal costs associated with these actions are estimated at US\$2-5M.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	product/packaging components could improve the differentiation of PMI's brands and increase our competitive advantage. Furthermore, trends in eco products increase the demand for, and availability of, new environmentally sustainable materials, or new usage of existing materials. An example of this in PMI includes the use of rice husk briquettes as fuel in the Philippines, and nut kernels as fuel in Indonesia.								

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: CC7. Emissions Methodology**

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CC7.1

**Please provide your base year and base year emissions (Scopes 1 and 2)**

Scope	Base year	Base year emissions (metric tonnes CO <sub>2</sub> e)
Scope 1	Fri 01 Jan 2010 - Fri 31 Dec 2010	443186

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 2 (location-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	470864
Scope 2 (market-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	470864

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**CC7.2**

**Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

**Please select the published methodologies that you use**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

ISO 14064-1

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

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**CC7.2a**

**If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

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**CC7.3**

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fifth Assessment Report (AR5 - 100 year)
CH4	IPCC Fifth Assessment Report (AR5 - 100 year)
N2O	IPCC Fifth Assessment Report (AR5 - 100 year)

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#### CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other:			See Attachment

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#### Further Information

PMI 2015 conversion/emission factors attached

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#### Attachments

[https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/PMI Fuel Conversion and GHG Emission Factors 2015 for CDP.xlsx](https://www.cdp.net/sites/2016/12/14712/Climate%20Change%202016/Shared%20Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/PMI%20Fuel%20Conversion%20and%20GHG%20Emission%20Factors%202015%20for%20CDP.xlsx)

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**CC8.1**

**Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Operational control

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**CC8.2**

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e**

361720

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**CC8.3**

**Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?**

Yes

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**CC8.3a**

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e**

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
448220	329324	

**CC8.4**

**Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**CC8.4a**

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
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**CC8.5**

**Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations**

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Extrapolation	For some of our offices and warehouses there is no primary data available currently and therefore extrapolation from available secondary data has been estimated.
Scope 2 (location-	Less than or equal	Extrapolation	For some of our offices and warehouses there is no primary data available currently and

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
based)	to 2%		therefore extrapolation from available secondary data has been estimated.
Scope 2 (market-based)	Less than or equal to 2%	Extrapolation	For some of our offices and warehouses there is no primary data available currently and therefore extrapolation from available secondary data has been estimated.

#### CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

#### CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2016/12/14712/Climate%20Change%202016/Shared%20Documents/Attachments/CC8.6a/PMI%20GHG%20Verification%20Statement%202015%20with%20detail.pdf">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC8.6a/PMI GHG Verification Statement 2015 with detail.pdf</a>	Page 1 total Scope 1 and 2, Page 2 method and scope, Page 3 specific Scope 1 number.	ISO14064-3	100

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**CC8.6b**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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**CC8.7**

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

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**CC8.7a**

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Market-based	Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2016/12/14712/Climate%20Change%202016/Shared%20Documents/Attachments/CC8.7a/PMI%20GHG%20Verification">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC8.7a/PMI GHG Verification</a>	Page 1 total Scope 1 and 2, Page 2 method	ISO14064-3	100

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
				Statement 2015 with detail.pdf	and scope, Page 3 specific Scope 2 number.		

### CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Other:	Operations EHS KPIs - energy, water and waste data as well as production volume data (for normalization) and safety KPIs.

### CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO<sub>2</sub>

2320.2

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**Further Information**

**Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)**

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**CC9.1**

**Do you have Scope 1 emissions sources in more than one country?**

Yes

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**CC9.1a**

**Please break down your total gross global Scope 1 emissions by country/region**

<b>Country/Region</b>	<b>Scope 1 metric tonnes CO2e</b>
Argentina	8146.0
Brazil	10204.9
Canada	1981.5
Colombia	1913.2
Costa Rica	392.1
Czech Republic	4027.7
Dominican Republic	359.5
Ecuador	597.9
Germany	20779.4
Greece	2188.0
Indonesia	16457.4

Country/Region	Scope 1 metric tonnes CO2e
Italy	333.4
Jordan	423.6
Kazakhstan	3190.0
South Korea	1839.2
Lithuania	2003.7
Malaysia	9502.7
Mexico	6332.1
Netherlands	21844.2
Pakistan	9235.6
Philippines	40926.9
Poland	10624.2
Portugal	6576.7
Romania	4221.7
Russia	30774.9
Senegal	531.1
Serbia	4135.6
South Africa	1524.6
Switzerland	2327.0
Turkey	5322.3
Ukraine	5784.2
Venezuela	13.0
Rest of world	127205.7

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**CC9.2**

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**

By activity

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**CC9.2a**

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
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**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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**CC9.2c**

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
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**CC9.2d**

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Manufacturing	234514
Vehicle Fleet	115182
Aircraft	4289
Offices	7735

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#### Further Information

Rest of World – includes our vehicle fleet, offices (including our New York Headquarters and Swiss Operations Center) and aircraft emissions for which our data is not broken down by country.

**Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)**

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#### CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

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#### CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Argentina	15714.9	15714.9	40273.3	0
Brazil	1372.3	1372.3	20213.9	0
Canada	2381.9	0	14280.0	14280.0
Colombia	967.3	967.3	8948.5	0
Costa Rica	93.2	93.2	1462.5	0
Czech Republic	15083.6	0	25523.6	25523.6
Dominican Republic	2368.4	2368.4	3188.4	0
Ecuador	926.1	926.1	2681.6	0
Germany	37129.3	84.9	79293.5	77738.2
Greece	13572.1	13572.1	18843.6	0
Indonesia	83567.7	83567.7	110748.7	0
Italy	2355.6	0	5865.4	5865.4
Jordan	2558.9	2558.9	4014.4	0
Kazakhstan	5308.0	5308.0	12314.6	0
South Korea	10251.4	10251.4	18795.6	0
Lithuania	5996.6	0	22216.3	22216.3
Malaysia	6469.5	6469.5	9406.3	0
Mexico	11194.4	11194.4	24873.7	0
Netherlands	11494.0	8537.3	28457.8	12000
Pakistan	2466.2	2466.2	6028.1	0
Philippines	38220.0	38220.0	77757.3	0
Poland	46977.6	3788.3	67905.7	55363.4
Portugal	8947.8	0	29485.0	29485.0
Romania	9271.6	9271.6	18591.7	0
Russia	34533.6	34533.6	78960.9	0
Senegal	3072.0	3072.0	4456.4	0
Serbia	12637.3	12637.3	16128.2	0
South Africa	2069.7	2069.7	2380.5	0
Switzerland	294.5	0	10909.1	10909.1

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Turkey	27201.4	27201.4	57690.4	0
Ukraine	12271.7	12271.7	27258.8	0
Venezuela	881.1	881.1	3759.5	0
Rest of world	20570	19924	67286	23914.2

**CC10.2**

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By activity

**CC10.2a**

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

**CC10.2b**

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)
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**CC10.2c**

**Please break down your total gross global Scope 2 emissions by activity**

Activity	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)
Manufacturing	424959	309399.4
Offices and datacenters	20570	19924

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**Further Information**

Rest of World – includes our offices (including our New York Headquarters and Swiss Operations Center) and datacenters for which we do not separately enter by country.

**Page: CC11. Energy**

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**CC11.1**

**What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

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**CC11.2**

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	Energy purchased and consumed (MWh)
Heat	12146
Steam	1952
Cooling	0

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**CC11.3**

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

1376395

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**CC11.3a**

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Jet kerosene	16420.8
Biogasoline	2124.7
Brown coal	48000.9
Diesel/Gas oil	241976.3

Fuels	MWh
Distillate fuel oil No 4	59697.8
Motor gasoline	268051.4
Natural gas	692861.6
Propane	23.9
Liquefied petroleum gas (LPG)	40589.5
Wood or wood waste	6648.2

#### CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Comment
Energy attribute certificates, Guarantees of Origin	263015	Renewable energy (certified green electricity) procurement for the majority of our EU facilities commenced in 2014, all certificates are available for 2015.
Contract with suppliers or utilities, with a supplier-specific emission rate, not backed by electricity attribute certificates	14280	Supply contract with HydroQuebec for our Canadian factory

#### CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
838829	838616	213	213	213	

#### Further Information

Page: [CC12. Emissions Performance](#)

#### CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

#### CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	8.1	Decrease	In 2015, 60,094 tCO <sub>2</sub> e of Scope 1 and 2 emissions were reduced by our emissions reduction activities. Our total Scope 1 and 2 emissions in the previous year were 746286 tCO <sub>2</sub> e. Therefore, we arrived at a 8.1% decrease: $(60094/746286)*100 = 8.1\%$ . We had an overall decrease in our absolute CO <sub>2</sub> emissions (from 746286 tonnes in 2014 to 691044 tonnes in 2015 i.e. a total of 55,242 tonnes reduced or 7.4%) driven by the 8.1% decrease due to emission reduction initiatives and taking into account the 0.7% increase due to change in output described below. The main items in emission reduction activities were an increase in the efficiency of

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
			our vehicle fleet by nearly 7% (Scope 1), 4% reduction in Scope 2 emissions from manufacturing (driven by both additional renewable energy uptake (around 11,000 tonnes reduced) and energy efficiency projects) and nearly 13% reduction in Scope 1 emissions from manufacturing (driven by fuel switching to greener fuels and energy efficiency projects).
Divestment	0	No change	
Acquisitions	0	No change	
Mergers	0	No change	
Change in output	0.7	Increase	In 2015, 4852 tCO <sub>2</sub> e of Scope 1 and 2 emissions were added due to an increase in output. Our total Scope 1 and 2 emissions in the previous year were 746286 tCO <sub>2</sub> e. Therefore, we arrived at a 0.7% increase: $(4852/746286)*100 = 0.7\%$ . The main drivers for this were an increase in production volume in 2015, partially offset by a small decrease in the km driven by our vehicle fleet.
Change in methodology	0	No change	
Change in boundary	0	No change	
Change in physical operating conditions	0	No change	
Unidentified	0	No change	
Other	0	No change	

#### CC12.1b

**Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.000026	metric tonnes CO2e	26794000000	Market-based	3	Increase	Decrease in absolute CO2e emissions by 7.4% (from 746,286 tonnes in 2014 to 691,044 tonnes in 2015), mainly driven by carbon reduction activities in our manufacturing facilities offset by changes in net revenue. The intensity number is derived from our 2015 CO2e emissions divided by net revenues of US\$26.8 billion. Excluding unfavorable currency of \$4.7 billion, net revenues increased by 5.9% to US\$31.5 billion compared to US\$29.8 billion in 2014. On a currency neutral basis, the intensity figure would therefore be 0.000022, a reduction of 12.2% from 2014. The term "net revenues" refers to operating revenues from the sale of our products, excluding excise taxes, and net of sales and promotion incentives. In previous years, total revenue has been quoted; however, we believe that the most appropriate basis of disclosure is net revenue (as defined) and in line with CDP guidance.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
8.62	metric tonnes CO2e	full time equivalent (FTE) employee	80200	Market-based	4.8	Decrease	Decrease in absolute CO2e emissions by 7.4% (from 746,286 tonnes in 2014 to 691,044 tonnes in 2015), mainly from our manufacturing facilities, while changing the total number of employees to 80,200. The intensity number is worked out from our 2015 CO2e emissions of 691,044 tonnes divided by 80,200 FTE employees. The overall emissions reduction in manufacturing breaks down to: over 3.9% reduction in Scope 2 emissions (driven by both renewable energy uptake and energy efficiency projects); and 12.6% reduction in Scope 1 emissions from manufacturing (driven by fuel switching and energy efficiency projects). In 2014 we had 746,286 tonnes of CO2e emissions and 82,500 FTE employees.
0.60	metric tonnes CO2e	unit of production	902479	Market-based	8.8	Decrease	This covers Scope 1 and 2 emissions from our manufacturing facilities only. We decreased our CO2 intensity from 661kg CO2 per million cigarettes equivalent in 2014 to 603kg CO2 per million cigarettes equivalent in 2015. This was driven by our Energy Management Program activities, (details provided in section 3.3) and renewable energy projects, along with a small increase in production volumes. The intensity number is worked out from our 2015 CO2e emissions of 543,914 tonnes (for manufacturing) divided by 902.5 billion cigarettes equivalent production volume. In 2014 we had 590,379 tonnes of CO2e emissions and 893.6 billion cigarettes equivalent production volume.

**Further Information**

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**CC13.1**

**Do you participate in any emissions trading schemes?**

Yes

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**CC13.1a**

**Please complete the following table for each of the emission trading schemes in which you participate**

<b>Scheme name</b>	<b>Period for which data is supplied</b>	<b>Allowances allocated</b>	<b>Allowances purchased</b>	<b>Verified emissions in metric tonnes CO2e</b>	<b>Details of ownership</b>
European Union ETS	Thu 01 Jan 2015 - Thu 31 Dec 2015	28004	0	22325	Facilities we own and operate

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**CC13.1b**

**What is your strategy for complying with the schemes in which you participate or anticipate participating?**

Through our Global Energy Management Program, paired with local reduction initiatives, we have targeted Energy and CO2 savings that will reduce the need for purchasing allowances. We balance our allowances purchased over a 3 year timeframe. Energy reduction has enabled 2 of our facilities to be removed from the EU ETS scheme in the last 2 years (moving below total combustion capacity thresholds).

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**CC13.2**

**Has your organization originated any project-based carbon credits or purchased any within the reporting period?**

Yes

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**CC13.2a**

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
Credit purchase	Other: Various - see attached certificate	Deutsche Post DHL GoGreen Carbon Management program. We voluntarily offset some of our logistics impact when we source services through DHL.	Other: CDM, VER and VCSR - details on attached certificate	248.24	248.24	Yes	Voluntary Offsetting

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**Further Information**

Attached DHL certificate

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**Attachments**

<https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC13.EmissionsTrading/Philip Morris - Europe - Climate Neutral Certificate 2015.pdf>

**Page: CC14. Scope 3 Emissions**

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**CC14.1**

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	3750000	Includes Tobacco (including the impact of curing tobacco) and direct materials, composing the cigarette, the pack and transport packaging (packaging, cigarette papers, acetate tow for filters, etc.). Our carbon footprint is based on actual data (primary data) and average industry data (secondary data), including a number of estimates and assumptions, using impact databases. Elements of our carbon footprint have been modeled using the Life Cycle Assessment (LCA) tool, Simapro. For our base year in 2010, we undertook a 3rd party review against ISO 14040 standards and now the GHG Protocol Scope 3 Accounting and Reporting Standard. We have extrapolated these emissions from 2014 based on production volume changes.	40.00%	Based on our current LCA. We continue our engagement process with direct materials and other suppliers in order to get more primary data. In 2014 we joined CDP Supply Chain to support this process and have continued in 2015 and 2016.
Capital goods	Relevant, calculated	110000	Emission factors for infrastructure (taking the proxy of a chemical factory), were used from a life cycle assessment database, ecoinvent v2.2, and modeled in Simapro.	0.00%	Existing infrastructure emissions were calculated during our original carbon footprint calculation and we use that to estimate the carbon emissions related to the manufacture and transport of capital goods (equipment, machinery, buildings, facilities, and vehicles) purchased by PMI annually.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	141475	GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The emissions are calculated by multiplying fuel quantities and electricity purchased by upstream and Transmission and Distribution	100.00%	The primary data used are the types and quantities of fuels and electricity used by PMI in 2015. Secondary data are used for upstream and T&D GHGs emission factors. For fossil and biogenic fuels, the emission factors are global

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			(T&D) GHG emission factors. When no emission factor is available for a specific country, the emission factor provided by UK Government (DEFRA) for the corresponding region is applied. Quality: The quality of the primary data used is high and the quality of the secondary data is medium. The quality of the emissions data is considered as medium.		without geographic differentiation. For electricity, T&D losses and heat losses, GHGs emissions are specific to each country or region. The activity data come from PMI's internal reporting tool. The GHGs emission factors used are taken from DEFRA guidelines for GHG accounting - 2015 and ecoinvent v2.2.
Upstream transportation and distribution	Relevant, calculated	324000	Estimates for tobacco and direct materials transport. Our carbon footprint is based on actual data (primary data) and average industry data (secondary data), including a number of estimates and assumptions, using impact databases. Elements of our carbon footprint, have been modeled using the LCA tool, Simapro. For our base year in 2010, we undertook a 3rd party review against ISO 14040 series of standards and the draft Scope 3 Accounting and Reporting Standard as released by the WBCSD / WRI GHG Protocol Initiative. We have extrapolated these emissions from 2014 based on production volume changes.	25.00%	Based on estimated distances travelled.
Waste generated in operations	Relevant, calculated	7632	GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The waste flows are broken down in over 50 different waste types and treatment methods. The waste-type specific method is used to calculate GHG emissions. Each treatment is associated with an emission factor to assess the GHGs emissions	100.00%	The primary data used for this category are the mass of waste generated in production centres, excluding office waste. The secondary data are the emission factors for the different waste treatment, taken from a life cycle assessment database, ecoinvent v2.2.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			<p>(secondary data) from the treatment (ecoinvent 2.2, IPCC 2007 GWP100). As per the Technical Guidance for Calculating Scope 3 Emissions of the GHG Protocol (p.80), emissions from incineration with energy recovery and from recycling are not included in the assessment, to avoid double counting. An estimation of the emissions from the transportation of the waste to the recycling or incineration facility is performed. The emissions from this transportation step are calculated as follows: 0.134 (transport, lorry &gt;16t, fleet average, RER, in CO2-eq / tkm) * 35 km (assumption) * mass of waste recycled or incinerated with energy recovery (in tonnes). It is assumed that the paper, cardboard and acetate tow sent to composting are fully degraded and therefore emit only biogenic CO2, not reported in the scope 1,2 and 3 of the GHG protocol. The transportation of this waste to the composting facility is accounted for. Quality: The quality of the primary data used is high. However, due to the simplification involved in the modeling (no geographical differentiation on the waste treatment was made), therefore the overall quality of the emission is estimated as medium.</p>		
Business travel	Relevant, calculated	82976	Through air miles accounting, using the DEFRA GHG Conversion Factors for Company Reporting - Air Passenger Transport	90.00%	Covering around 80 countries through PMI air miles accounting which is estimated at 90% of overall travel - this is then extrapolated to

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Conversion Factors for "Premium Economy class" for 2015.		100%.
Employee commuting	Relevant, calculated	77600	Estimated based on average commute distances and transport methods across 80,200 employees using data extrapolation from our own fleet of vehicles.	10.00%	Only some sites have undertaken mobility surveys of employees (commuting), therefore primary data is limited.
Upstream leased assets	Not relevant, explanation provided				Our upstream leased assets are not material to our carbon footprint - associated emissions are small in comparison to our total Scope 3 emissions and do not meet our 5% materiality threshold.
Downstream transportation and distribution	Relevant, calculated	496000	Distribution of finished goods; estimate based on 8 key markets extrapolated for the whole of PMI. Our carbon footprint is based on actual data (primary data) and average industry data (secondary data), including a number of estimates and assumptions, using impact databases. Elements of our carbon footprint, have been modeled using the LCA tool, Simapro. For our base year in 2010, we undertook a 3rd party review against ISO 14040 series of standards and the draft Scope 3 Accounting and Reporting Standard as released by the WBCSD / WRI GHG Protocol Initiative. We have extrapolated these emissions from 2014 based on sales volume changes.	25.00%	Based on estimated distances for defined transport means in 8 key markets.
Processing of sold products	Not relevant, explanation provided				Not relevant since our sold products are not processed.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Use of sold products	Relevant, calculated	141000	This assumes the use of cigarette lighters. Our carbon footprint is based on actual data (primary data) and average industry data (secondary data), including a number of estimates and assumptions, using impact databases. Elements of our carbon footprint, have been modeled using the LCA tool, Simapro. For our base year in 2010, we undertook a 3rd party review against ISO 14040 series of standards and the draft Scope 3 Accounting and Reporting Standard as released by the WBCSD / WRI GHG Protocol Initiative. We have extrapolated these emissions from 2014 based on sales volume changes.	25.00%	Based on estimated usage of lighter fuel per cigarette.
End of life treatment of sold products	Relevant, calculated	11500	Downstream waste treatment and street cleaning related to cigarette butts and waste packaging. Our carbon footprint is based on actual data (primary data) and average industry data (secondary data), including a number of estimates and assumptions, using impact databases. Elements of our carbon footprint, have been modeled using the LCA tool, Simapro. For our base year in 2010, we undertook a 3rd party review against ISO 14040 series of standards and the draft Scope 3 Accounting and Reporting Standard as released by the WBCSD / WRI GHG Protocol Initiative. We have extrapolated these emissions from 2014 based on sales volume changes.	10.00%	Based on Swiss market assumptions and extrapolation.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Downstream leased assets	Not relevant, explanation provided				Our downstream leased assets are not material to our carbon footprint, associated emissions are small in comparison to our total Scope 3 emissions and do not meet our 5% materiality threshold.
Franchises	Not relevant, explanation provided				No existing franchise business.
Investments	Not relevant, explanation provided				Our investments are not material to our carbon footprint, associated emissions are small in comparison to our total Scope 3 emissions and do not meet our 5% materiality threshold.
Other (upstream)					
Other (downstream)					

**CC14.2**

**Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

Third party verification or assurance process in place

**CC14.2a**

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2016/12/14712/Climate%20Change%202016/Shared%20Documents/Attachments/CC14.2a/PMI%20GHG%20Verification%20Statement%202015%20with%20detail.pdf">https://www.cdp.net/sites/2016/12/14712/Climate Change 2016/Shared Documents/Attachments/CC14.2a/PMI GHG Verification Statement 2015 with detail.pdf</a>	Page 1 total Scope 3, Page 2 method and scope, Page 3 specific Scope 3 category detail.	ISO14064-3	4

### CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

### CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
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Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	10	Decrease	Corresponding to a 7% reduction in energy used in 2015 compared to 2014 due to energy reduction initiatives and the use of greener energy sources.
Waste generated in operations	Emissions reduction activities	11	Decrease	Corresponding to a decrease in total waste quantities from waste reduction initiatives and an increase in our recycling rate from 85.4% in 2014 to 87.4% in 2015.

#### CC14.4

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

Yes, our suppliers  
Yes, our customers

#### CC14.4a

**Please give details of methods of engagement, your strategy for prioritizing engagement and measures of success**

Our suppliers:

We have used our carbon footprint calculation to identify the main climate change impacts of our purchased materials. In our direct materials (non-tobacco) area we identified acetate tow and consumer board & paper as significant contributors from a raw materials perspective to our carbon footprint and this is why we prioritized engagement with suppliers in these areas. We engaged with key suppliers in these two areas through direct discussions and a questionnaire to ascertain carbon related strategies and performance and as a means of assessing the value of joining CDP Supply Chain. As a measure of success, 90% of the suppliers surveyed engaged with us on this subject. From this basis we decided to join CDP Supply Chain and were involved in process for the first time in 2014. Based on our carbon footprint we invited suppliers covering tobacco, paper/board, acetate tow and also distribution/logistics again in 2015 and have expanded our invitee list in 2016. We aim to have at least 80% of our invited suppliers to engage with us through CDP Supply Chain and we beat that target again in 2015 with over 90% responding. In the medium term we will use this forum to drive decreases in our value chain emissions where overall we are aiming to reduce emissions intensity by 30% by 2020.

We also engage with our suppliers regularly in the following main areas:

- Tobacco leaf suppliers – through Good Agricultural Practices (GAP) collaboration which covers mandatory requirements for managing energy and climate change (mitigation and adaptation) . Implementation of GAP leads to the definition of key areas for improvement where we put initiatives in place to take action, we call these Sustainable Tobacco Production (STP) initiatives which we work on with our suppliers.
- Direct Materials suppliers – through procurement and product development activities which include the definition of parameters of environmental performance for different raw material components.
- Equipment manufacturers – through an industry colloquium which helps target energy efficiency developments for our manufacturing equipment.

Through engagement and information exchange we aim to increase the proportion of our carbon footprint that is based on primary data rather than LCA. By 2020 we expect primary data to cover at least 80% of our value chain emissions.

Our customers:

We have engaged with several key account customers on sustainability topics, including with Tesco to support their own carbon footprint reduction target for their supply chain. We also regularly engage on sustainability topics with other key accounts and stakeholders through questionnaire responses and presentations. We will measure our success through direct feedback from our customers where in some cases, sustainability topics form a part of our business relationship review.

We prioritize engagement as follows:

- 1) Our Customers
- 2) Our Suppliers based on share of our carbon footprint (mitigation)
- 3) Our Suppliers based on our climate change risk assessment (adaptation)

#### CC14.4b

**To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent**

Number of suppliers	% of total spend (direct and indirect)	Comment
31	70%	Covers Direct Material suppliers representing around 70% of Direct Materials total spend. Also the majority of our main tobacco and logistics services providers. Currently excludes spend on business services.

#### CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Identifying GHG sources to prioritize for reduction actions	We will include their primary data in our future carbon footprint reviews to improve the accuracy of estimated data. We will consider supplier/customer data and climate change strategies in our road-map for our carbon footprint reduction targets for our entire supply chain / value chain. We are continuing to develop best practice sharing on carbon footprint reduction through both direct contact and CDP Supply Chain.

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

**Module: Sign Off**

**Page: CC15. Sign Off**

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Andre Calantzopoulos	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

Further Information

**Module: FBT**

**Page: FBT1. Agriculture**

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**FBT1.1**

**Are agricultural activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?**

Yes

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**FBT1.1a**

**Please explain why agricultural activities are not relevant to your climate change disclosure**

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**FBT1.2**

**Are the agricultural activities that you have identified as relevant undertaken on your own farm(s), elsewhere in your value chain, or both?**

Elsewhere in value chain

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**FBT1.2a**

**Please explain why agricultural emissions from your own farms are not relevant**

We do not own or operate farms

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**FBT1.3**

**Do you account for greenhouse gas emissions from agricultural activities undertaken on your own farm(s) as part of the global gross Scope 1 emissions figure reported in CC8.2, and/or the Scope 2 figure reported in CC8.3a of the core climate change questionnaire?**

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**FBT1.3a**

Please select the form(s) in which you wish to report the greenhouse gas emissions produced by agricultural activities (agricultural emissions) undertaken on your own farm(s)

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**FBT1.3b**

Please report your total agricultural emissions produced on your own farm(s) and identify any exclusions in the table below

Scope	Agricultural emissions (metric tonnes CO2e)	Methodology	Exclusions	Explanation	Comment
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**FBT1.3c**

Please report your agricultural emissions produced on your own farm(s), disaggregated by category, and identify any exclusions in the table below

Emissions category	Agricultural emissions (metric tonnes CO2e)	Methodology	Exclusions	Explanation	Comment
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**FBT1.3d**

Please explain why you do not account for greenhouse gas emissions from agricultural activities undertaken on your own farm(s), and describe any plans for the collection of this data in the future

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**FBT1.4**

Do you implement agricultural management practices on your own farm(s) with a climate change mitigation and/or adaptation benefit?

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FBT1.4a

Please identify agricultural management practices undertaken on your own farm(s) with a climate change mitigation and/or adaptation benefit. Complete the table

Activity ID	Agricultural management practice	Description of agricultural management practice	Climate change related benefit	Comment
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FBT1.4b

Does your implementation of these agricultural management practices have other impacts? Complete the table

Activity ID	Impact on yield	Impact on cost	Impact on soil quality	Impact on biodiversity	Impact on water	Other impact	Description of impacts	Comment
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FBT1.4c

Do you have any plans to implement agricultural management practices in the future?

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FBT1.4d

Please detail your plans to implement agricultural management practices in the future

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FBT1.5

Is biogenic carbon pertaining to your own farm(s) relevant to your climate change disclosure?

FBT1.5a

Please report biogenic carbon data pertaining to your own farm(s) in the table below

CO2 flux	Emissions/ Removals (metric tonnes CO2e)	Methodology	Exclusions	Explanation	Comment
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FBT1.6

Do you account for greenhouse gas emissions from agricultural activities in your value chain as part of the Scope 3 category "Purchased goods and services" reported in CC14.1 of the core climate change questionnaire?

Yes

FBT1.6a

Please report these agricultural emissions from your value chain and identify any exclusions in the table below

Scope	Agricultural emissions (% of the emissions reported in the category "Purchased goods and services")	Exclusions	Explanation	Comment
Scope 3	51-60%	None	Emissions from tobacco farming which includes curing tobacco, agricultural machinery, building materials, fertilizers and crop protection agents, etc.	

FBT1.6b

Please explain why you do not account for greenhouse gas emissions from agricultural activities in your value chain as part of the Scope 3 category “Purchased goods and services” reported in CC14.1 of the core climate change questionnaire

FBT1.7

Do you encourage your agricultural suppliers to undertake any agricultural management practices with a climate change mitigation and/or adaptation benefit?

Yes

FBT1.7a

Please identify agricultural management practices with a climate change mitigation and/or adaptation benefit that you encourage your suppliers to implement. Complete the table

Activity ID	Agricultural management practice	Description of agricultural management practice	Your role in the implementation of this practice	Explanation of how you encourage implementation	Climate change related benefit	Comment
1	Other: Good Agricultural Practices Program	Full scope - GAP defines the principles and measurable standards to be met by all those who grow and supply tobacco to PMI. These principles and standards are organized around three focus areas (pillars): Crop, Environment, and People (Agricultural Labor Practices (ALP)). Governance is the foundation of these pillars and incorporates the management processes that must be put in place to successfully implement GAP. The Environment pillar covers sustainable water management, soil management/conservation, energy and raw material efficiency, waste management, biodiversity and the sustainable use of wood.	Financial Knowledge sharing Operational Procurement	We mandate GAP implementation for suppliers of tobacco to PMI. Our Leaf Department supports our suppliers in implementation and, where we directly contract farmers, our field technicians provide direct support.	Emissions reductions (mitigation) Increasing resilience to climate change (adaptation)	

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**FBT1.7b**

**Does the implementation of these agricultural management practices in your value chain have other impacts? Complete the table**

Activity ID	Impact on yield	Impact on cost	Impact on soil quality	Impact on biodiversity	Impact on water	Other impact	Description of impacts	Comment
1	Evaluated - beneficial impact	Full scope - GAP comprehensively covers economic, labour practices and environmental topics.						

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**FBT1.7c**

**Do you have any plans to engage with your suppliers on their implementation of agricultural management practices?**

Yes

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**FBT1.7d**

**Please detail these plans to engage with your suppliers on their implementation of agricultural management practices**

GAP is mandatory for all suppliers of tobacco to PMI, as is reflected in all PMI's and its affiliates' supply contracts. PMI expects all of its' suppliers to continuously improve in the implementation of GAP principles and standards, working with the farmers from whom they purchase.

Suppliers are required to conduct annual self-assessments of their GAP implementation and are provided with a management tool and set of measurable standards against which they rate themselves. Further, the information resulting from the farm by farm monitoring of the measurable standards is consolidated into Key Performance Indicators that are used to assess suppliers' improvement in GAP over time.

Farmers' and suppliers' progress in GAP implementation is now monitored both internally and externally by third parties who will complete a formal GAP assessment to verify supplier self-assessments every three years. Additionally, for the People Pillar of GAP (Agricultural Labor Practices (ALP)), a non-governmental organization has also guided our efforts to set up a monitoring system with a third party who is completing a detailed assessment of suppliers' ALP Program implementation. The results of our ALP program assessments are available on our website.

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**Further Information**

**FBT2.1**

**Are processing activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?**

Yes

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**FBT2.1a**

Please explain why processing activities are not relevant to your climate change disclosure

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**FBT2.2**

**Are the processing activities that you have identified as relevant undertaken in your direct operations, elsewhere in your value chain, or both?**

Both direct operations and elsewhere in value chain

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**FBT2.2a**

Please explain why emissions from processing activities in your direct operations are not relevant

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**FBT2.3**

**Do you account for emissions from processing activities in your direct operations as part of the global gross Scope 1 emissions figure reported in CC8.2a and/or the Scope 2 figure reported in CC8.3a of the core climate change questionnaire?**

Yes

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**FBT2.3a**

Please report these emissions from processing activities in your direct operations and identify any exclusions in the table below

Scope	Emissions from processing activities (metric tonnes CO2e)	Exclusions	Explanation	Comment
Scope 1	8755	None		Emissions from PMI owned and operated Stemmeries (tobacco processing).
Scope 2	5033	None		Emissions from PMI owned and operated Stemmeries (tobacco processing).

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#### FBT2.3b

Please explain why you do not account for emissions from processing activities in your direct operations, and describe any plans for the collection of this data in the future

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#### FBT2.4

Do you account for emissions from processing activities in your value chain as part of the Scope 3 category "Purchased goods and services" and/or "Processing of sold products" reported in CC14.1 of the core climate change questionnaire?

Yes

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#### Further Information

**Page: FBT3. Distribution**

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#### FBT3.1

Are distribution activities, whether in your direct operations or elsewhere in your value chain, relevant to your climate change disclosure?

Yes

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#### FBT3.1a

Please explain why distribution activities are not relevant to your climate change disclosure

**FBT3.2**

**Are the distribution activities that you have identified as relevant undertaken in your direct operations, elsewhere in your value chain, or both?**

Both direct operations and elsewhere in value chain

**FBT3.2a**

Please explain why emissions from distribution activities in your direct operations are not relevant

**FBT3.3**

**Do you account for emissions from distribution activities in your direct operations as part of the global gross Scope 1 emissions figure reported in CC8.2 and/or the Scope 2 figure reported in CC8.3a of the core climate change questionnaire?**

Yes

**FBT3.3a**

**Please report these emissions from distribution activities in your direct operations and identify any exclusions in the table below**

Scope	Emissions from distribution activities (metric tonnes CO2e)	Exclusions	Explanation	Comment
Scope 1	115182	None - PMI operated vehicles only	These emissions are for PMI's total vehicle fleet which does include some benefit vehicles (estimated at 10%).	
Scope 2	0			

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**FBT3.3b**

Please explain why you do not account for emissions from distribution activities in your direct operations, and describe any plans for the collection of this data in the future

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**FBT3.4**

Do you account for emissions from distribution activities in your value chain as part of the Scope 3 category "Upstream transportation and distribution" and/or "Downstream transportation and distribution" in CC14.1 of the core climate change questionnaire?

Yes

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**Further Information**

**Page: FBT4. Consumption**

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**FBT4.1**

Are emissions from the consumption of your products relevant to your climate change disclosure?

Yes

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**FBT4.1b**

Please explain why emissions from the consumption of your products are not relevant to your climate change disclosure

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**FBT4.1a**

Do you account for emissions from the consumption of your products as part of the Scope 3 category "Use of sold products" and/or "End of life treatment of sold products" in CC14.1 of the core climate change questionnaire?

Yes

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**Further Information**

**CDP 2016 Climate Change 2016 Information Request**